

develop within the mixing chamber topologically. This is one of the essential differences between the two inventions.

Therefore, as claimed in the new claim 23, the instant invention is not obvious in light of Wygnanski as the claimed invention claims the creation of an instability (mechanism) that is created from passive influences such as the geometry of the mixing chamber and the configuration of the splitter plate. The resulting instability is forced using a constant narrow forcing frequency band which results in enhanced streamwise vortices and enhanced mixing. Furthermore, the instant process produces dramatically enhanced streamwise vortices, and therefore mixing with a greater magnitude than exhibited in Wygnanski where only small flow fluctuations resulted.

Finally, in Wygnanski the active element is driven in the vicinity of the beginning of the mixing region to induce the oscillation of the fluids normal to the mixing region flow axis as required by (col. 1, lines 57-63). For the claimed invention, the forcing can be more versatile, i.e., any method that oscillates one or two streams before or near the beginning of the mixing region.

Specification

Agent for Applicant respectfully requests amendment to the specification without the addition of new subject matter. Deletions therefrom are shown in square parentheses while additions thereto are shown with dashes. As the originally filed application did not contain line numbering, agent for Applicant has enclosed a copy of the originally filed application with the line numbering included for the convenience of the Examiner.

Page 1, line 7	delete [1]
Page 1, line 7	after the word "of " insert ---the---
Page 1, line 14	delete [2 Description of the prior arts] and insert --- <u>Background of the Invention</u> ---

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- Page 1, line 31 delete [3 The new mixing process of a mixer proposed here] and insert ---Summary of the Invention---
- Page 2, line 7 after the first paragraph insert ---Brief Description of the Drawings

Figure 1 is a schematic of the preferred embodiment of the mixing device and process.

Figure 2a, b and c are side views of the mixing results.

Figure 3 is a schematic graph of the comparison of concentration time trace.

Figure 4 is a schematic graph of the comparison of concentration Histogram.

Detailed Description of Preferred Embodiment---

- Page 3, line 19 delete [4 Comparison with other mixing processes]
- Page 3, line 21 delete [4.1 Disadvantages of the other mixers] and insert ---The following discusses the comparison of the preferred embodiment with other mixing processes and disadvantages of other mixing devices.---
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- Page 3, line 39 delete [4.2 Advantages of the new mixing process] and insert ---Advantages with the preferred embodiment of the new mixing process are discussed below.---
- Page 4, line 14 delete [Claims]
- Page 4, line 16 delete [What is claimed is the process of mixing of fluids, which is based on the receptivity mechanism, i.e., the periodical excitation of the characteristic instability behavior of the shear layer (mixing layer or wake) downstream of the splitter plate between the two initial streams for a given